

2020 Lockwood Water & Sewer District Wastewater PER Update

Public Meeting No. 2
July 9, 2020

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Presented by:



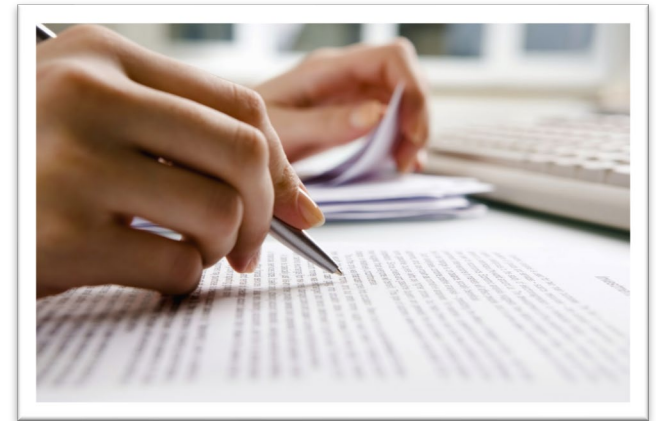
Public Meeting No. 2 Objectives:

- Purpose of the PER process
- Review recent sewer progress and success
- Overview of Phase 3 projects and costs
- Funding programs
- Implementation schedule
- Review environmental record
- Public input and questions



Why Prepare a Preliminary Engineering Report (PER)?

- Develop tools for effective decision making
 - Project priorities
 - Project cost estimates
- Identify projects and costs for State and Federal grants and low interest loans (~3%)
- Address the needs of the community



Scope of PER

- **Assess Current Situation**
 - Existing wastewater collection system
 - Planning area and demographics
- **Assess Future Situation**
 - Population projections
 - Wastewater flow forecasts
- **Develop and Evaluate Alternatives**
 - Identify options which may make the project more affordable or effective
 - Environmental review
- **Develop Implementation Plan**
 - Preliminary layout of sewer system
 - Estimate project costs
 - Establish preliminary implementation schedule



Need for Project

- Lockwood was previously the largest un-sewered community in Montana
- 1998: Population was ~4,000
- Projected growth rate: 2.4%
- Major commercial growth was occurring near new Johnson Lane interchange
 - Flying J truck stop
 - 2 new banks
 - Fast food restaurants
 - Hotels wanted to build but reportedly were waiting for a sewer (Holiday Inn was built with septic)
 - Public input and questions



Need for Project

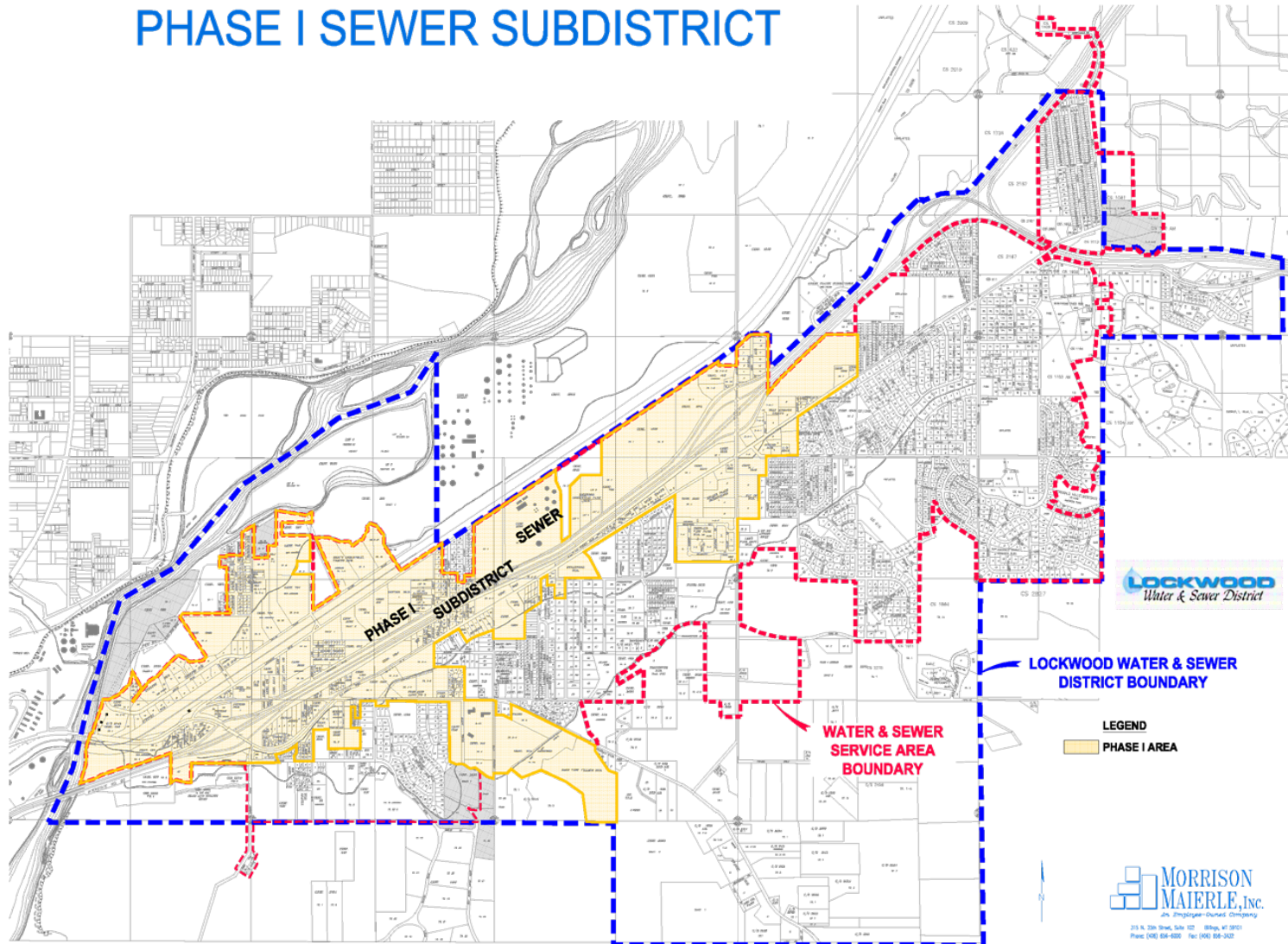
- 0.5 million gallons per day of wastewater generated and discharged through drainfields
- 25% of drainfields had failed
- Non-standard repairs being allowed
- Unsuitable soils and very small lots
- Drainfields are always a temporary solution
- Concern for groundwater contamination
- High nitrates

Agreement with City of Billings

- Treatment Options
 - Evaluated building own system or connection to City of Billings
 - Political considerations
 - Cross the Yellowstone
- March 2008 – Reached agreement with City of Billings to accept wastewater
- Complex agreement – LWSD tests flows, meters, pays Reserve Capacity Fee



PHASE I SEWER SUBDISTRICT



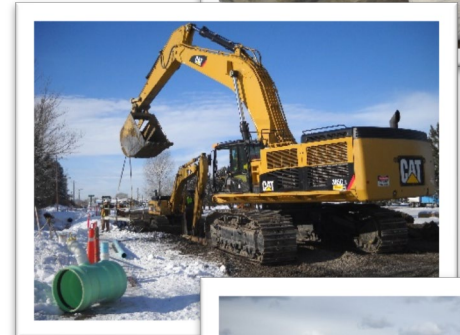
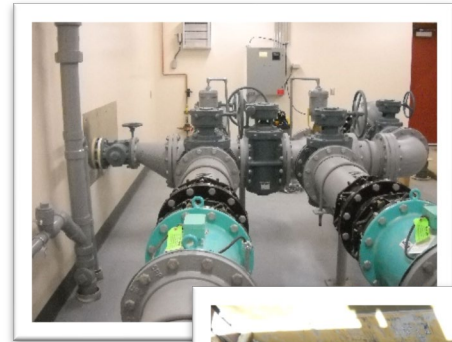
Phase 1 Finances

- **Projected:**

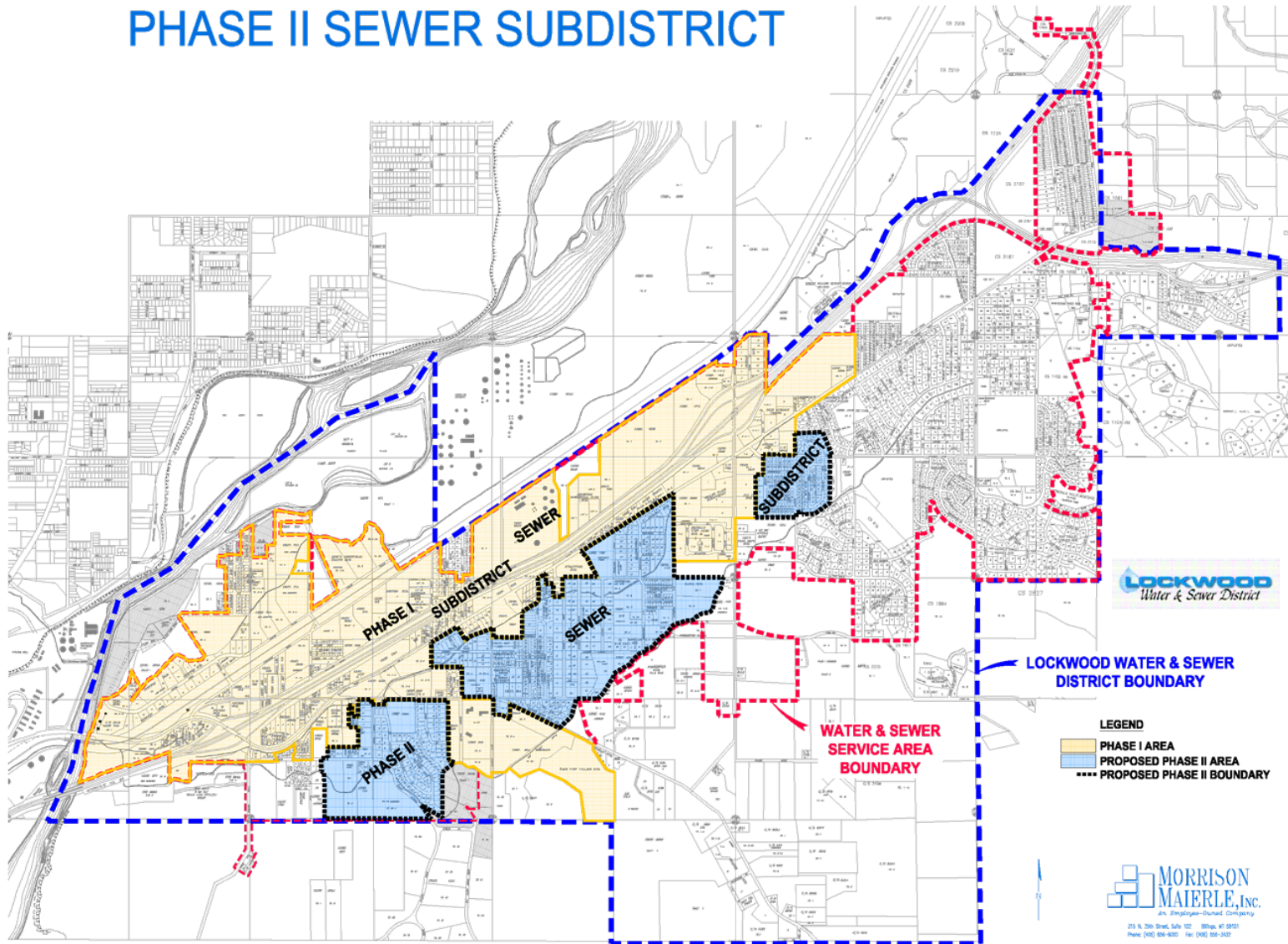
- Total Cost \$20,704,600
- GO Bond \$14,000,000 (*based on taxable value)
- STAG Grant \$6,704,600

- **Actual:**

- Total cost \$19,400,000
- Savings of over \$1,000,000 in cost
- TSEP Grant \$500,000
- ARRA Grant \$490,700
- STAG Grant \$6,704,600
- SRF Loan Forgiveness \$559,000
- Final Bond ~ \$11.2 M
- Savings on Bond Amount due to project savings and addition grant funds: ~\$2.8 M



PHASE II SEWER SUBDISTRICT



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Phase 2 Approval

- After GO Bond failed, LWSD did extensive public outreach
 - Postcards
 - 7 separate "Neighborhood Meetings"
 - Morrison-Maierle & 3rd party consultant
- Determine why and who voted no (areas)
- Identify areas of strong support who needed sewer
- Goal: Utilize funding that was obtained
- Area was refined; Phase 2 serves ~640 properties. Originally included 1020.



Phase 2 Sewer Funding

- **GRANTS: \$2,740,380**
 - USDA-RD - \$1,890,380
 - TSEP - \$750,000
 - RRGL - \$100,000
- **LOANS: \$6,000,000**
 - USDA-RD - \$ 3,000,000, 2.75% for 40 years
 - SRF – \$3,000,000, 2.5% for 30 yrs
 - \$200,000 Loan Forgiveness
- **LWSD \$3,000 (and more for Water CIP and paving shares)**
- **Yellowstone Co. - \$785,555 (additional paving)**



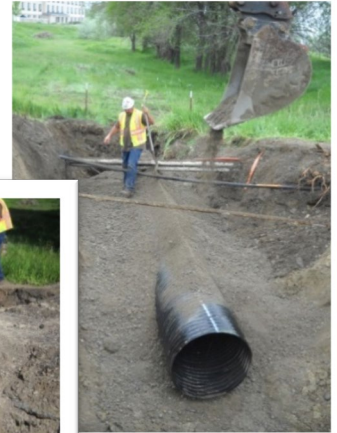
Phase 2 – Special Assessment Method

- Different than Phase 1 GO Bond
- Was based on input from public after the Phase 2 GO Bond failed
- Equal amount per each tax code – favored in neighborhood mtgs
- Assessment updated annually with additional new subdivisions within boundary
- Pre-payment of assessment allowed

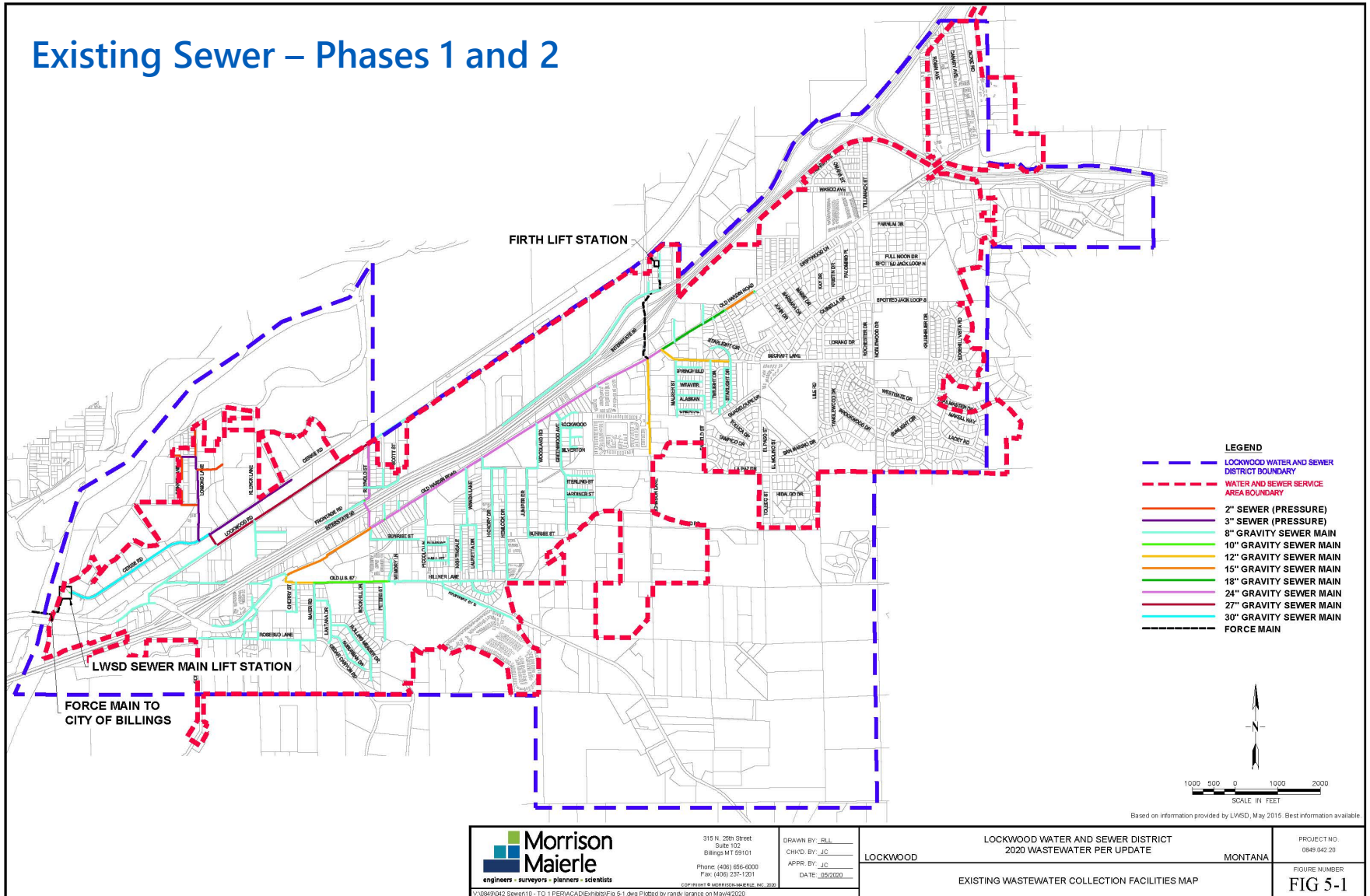


Maximizing Opportunities through Partnerships

- Coordination with Lockwood Water CIP
- MDU agree to move gas lines and use opportunity to upgrade
- Concrete lanes at Johnson Lane Intersection – Yellowstone Co.
- County culverts replaced – Yellowstone Co. supplied and contractor installed
- County and LWSD combined funds to pave various streets in poor condition



Existing Sewer – Phases 1 and 2



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Future Sewer Service Areas

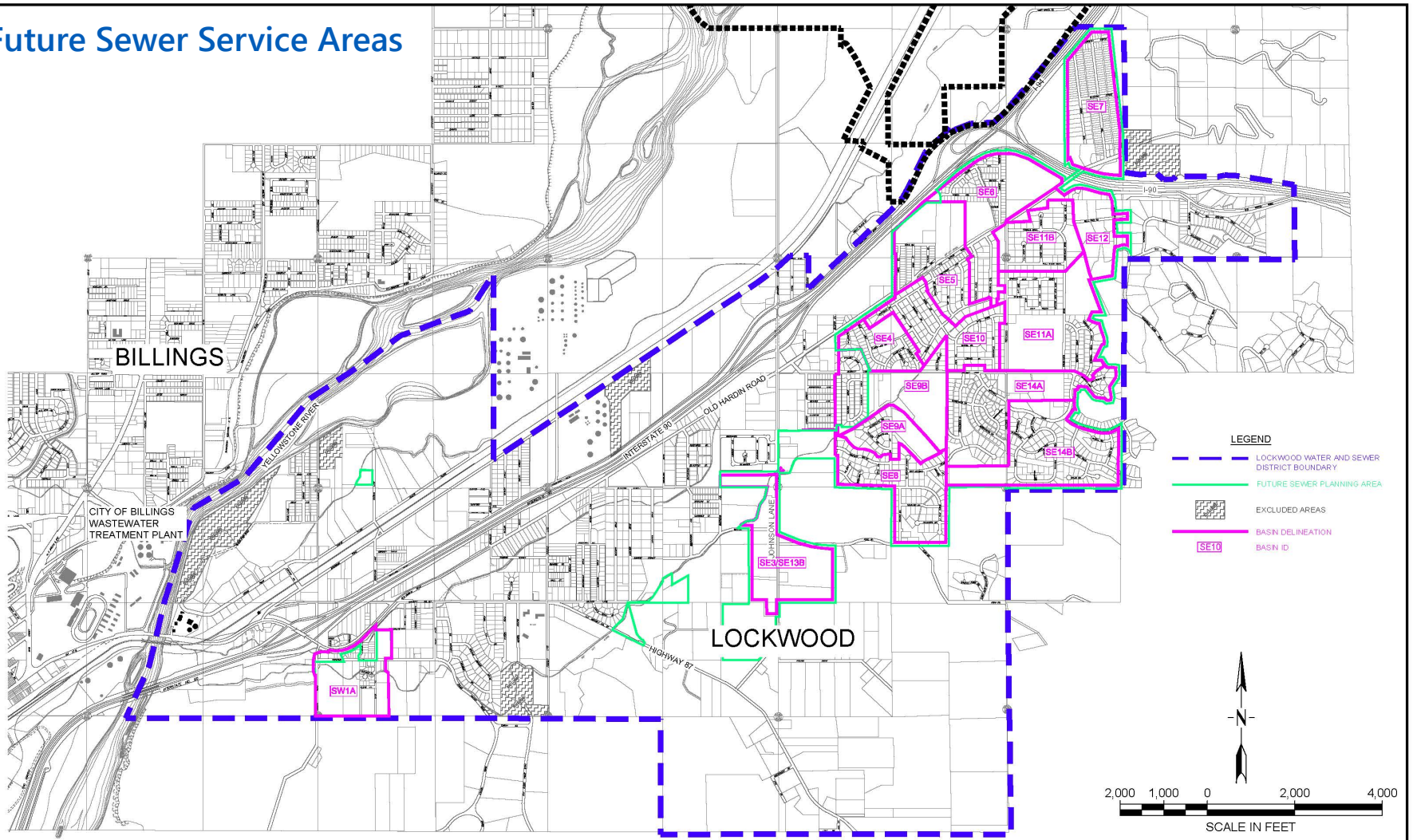
- Service Area Delineation
- Population and Wastewater Flows





Major contributors
Zoning
Residential
Future Growth



Wastewater Flows

Future Sewer Service Areas



 <p>engineers • surveyors • planners • scientists</p> <p>V:\0849042 Sewer\10 - TO 1 PER\ACADE\10\fig 7-1.dwg Plotted by randy larance on May/4/2020</p>	 <p>315 N. 25th Street, Suite 102 Billings, MT 59101</p>  <p>406.656.6000</p>  <p>www.m-m.net</p> <p>CONCEPT © MORRISON MAIERLE, INC. 2020</p>	DRAWN BY: B.L.	LOCKWOOD WATER AND SEWER DISTRICT 2020 WASTEWATER PER UPDATE		PROJECT NO. 0849 042 20
		DSGN BY: JAC	LOCKWOOD		
		APPR BY: JAC		MONTANA	
		DATE: 05/03/20	FUTURE SEWER PLANNING WASTEWATER BASIN MAP		FIGURE NUMBER FIG 7-1

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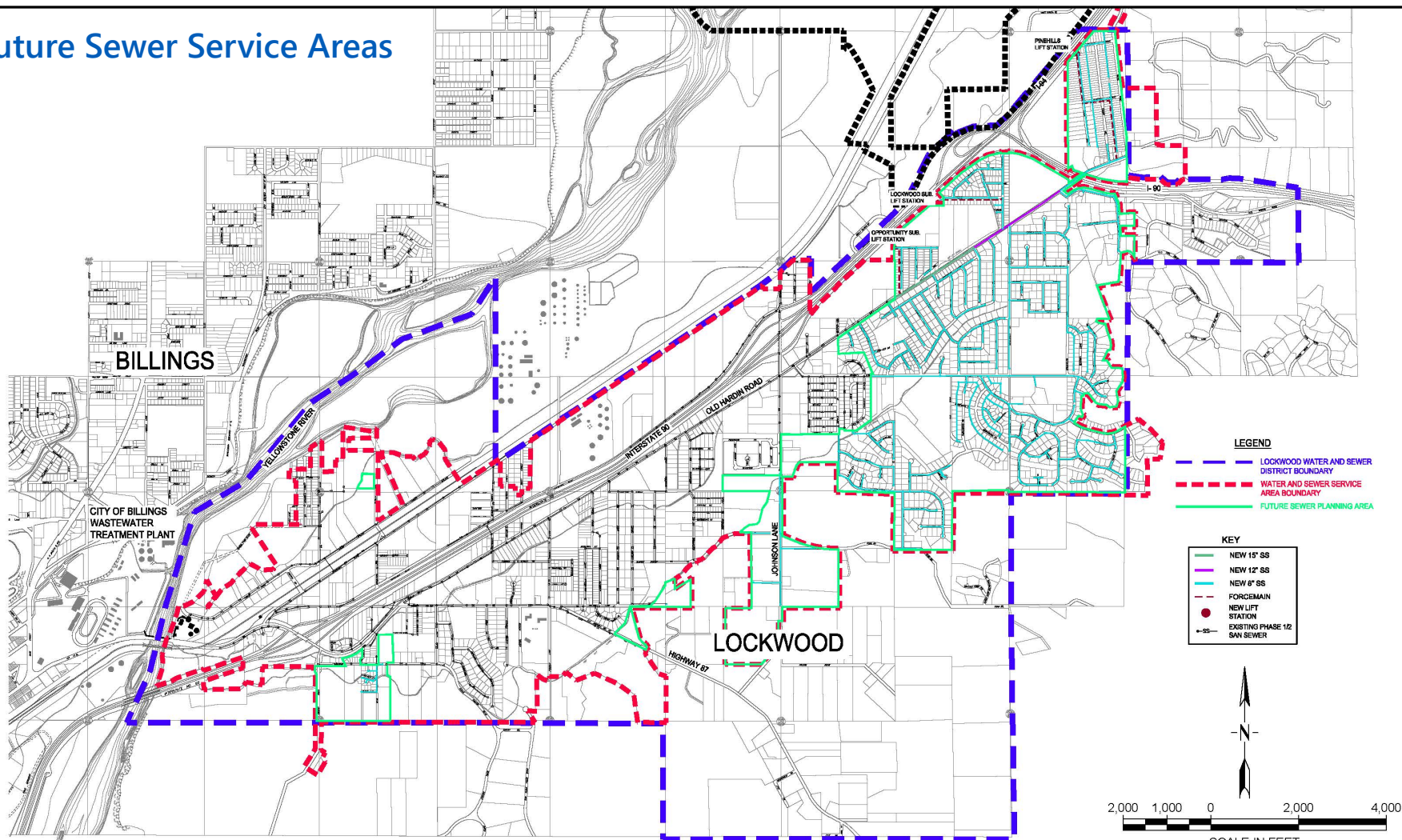
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Future Sewer Service Areas



 <p>Morrison Maierle</p> <p>engineers • surveyors • planners • scientists</p>	<p>315 N. 26th Street, Suite 102 Billings, MT 59101</p> <p>406.656.6000</p> <p>www.m-m.net</p> <p><small>© 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Potential Future Sewer Phasing

- Areas that are currently unsewered were evaluated as part of the Future Sewer Planning Area
- Each area was analyzed to develop a preliminary cost estimate

Basin Prioritization Criteria

- Project Affordability (Cost/Lot)
- Public Support
- Constructability / Efficient Phasing
- Drainfield Conditions / Soil Suitability
- Growth Potential / Economic Cost Effectiveness



Phase 3 Planning Area

- The areas that were ranked highest were identified and prioritized as the "Phase 3" Planning Area
- Lower ranked areas were identified as a future "Phase 4"
- A Phase 3 planning boundary was established to allow for cost estimating and alternative analysis regarding project implementation (1 project or 2 projects)
- Final boundary will need to be established through a legal process that allows for public input

Phase 3 Alternatives

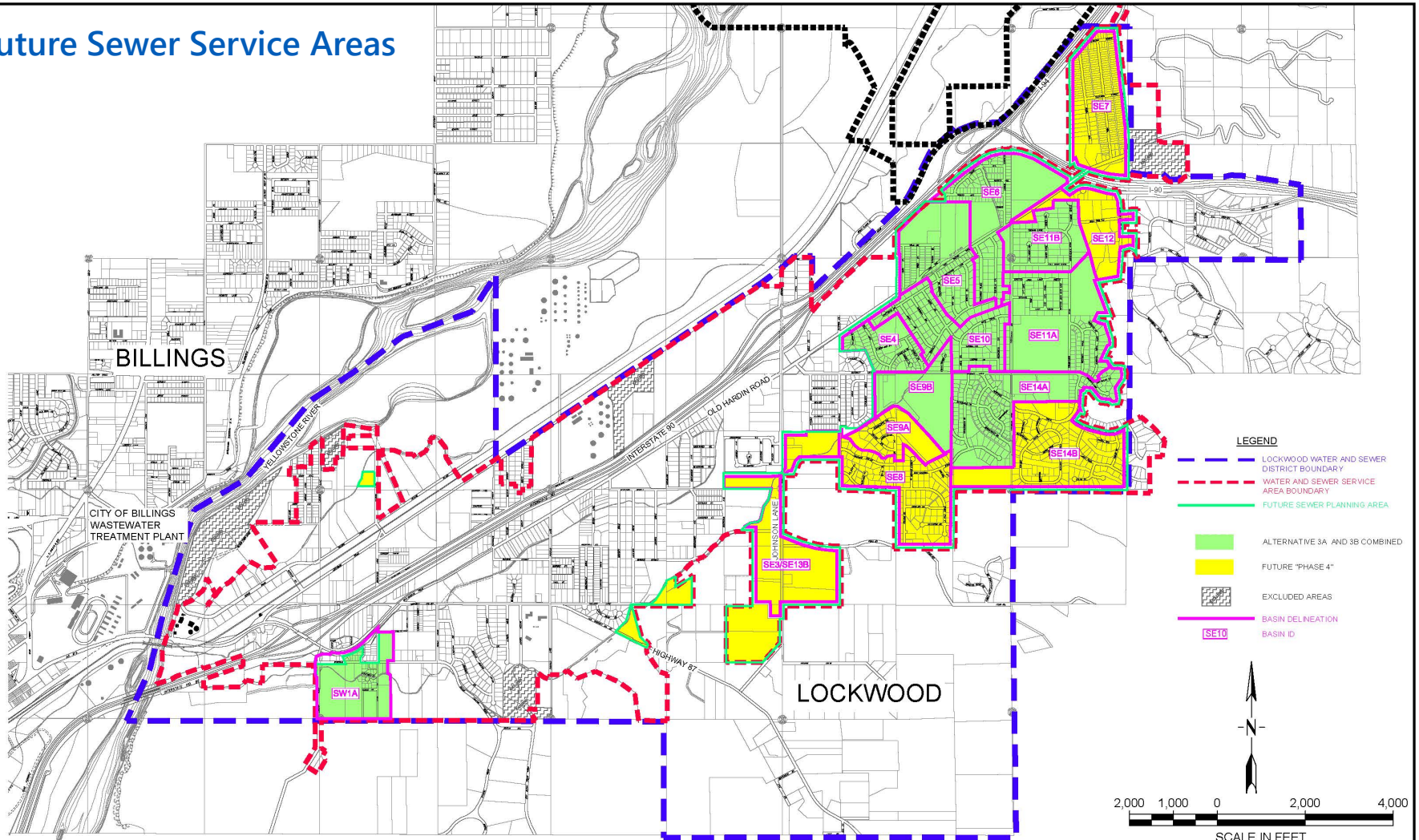
- Alternatives 1 and 2: Phasing of Service Areas
- Alternative 3: Optimize the Number of Lift Stations
- Alternative 4: Alternative Sewers
- Alternative 5: Alley Construction
- Alternative 6: Move Trunk Main from Old Hardin Road to Driftwood

Alternatives 1 and 2 Comparison Criteria

- Project Affordability
- Operational Ease
- Facility Flexibility
- Resource Use
- Local Economic Effect



Future Sewer Service Areas



Morrison Maierle
engineers • surveyors • planners • scientists

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APPROVED BY: JAC
DATE: 09/20/20

LOCKWOOD
LOCKWOOD WATER AND SEWER DISTRICT
2020 WASTEWATER PER UPDATE
MONTANA
PHASE 3 SEWER SUBDISTRICT
ALTERNATIVE 1 - ONE PROJECT

PROJECT NO.
0849/042/20
FIGURE NUMBER
FIG 7-4

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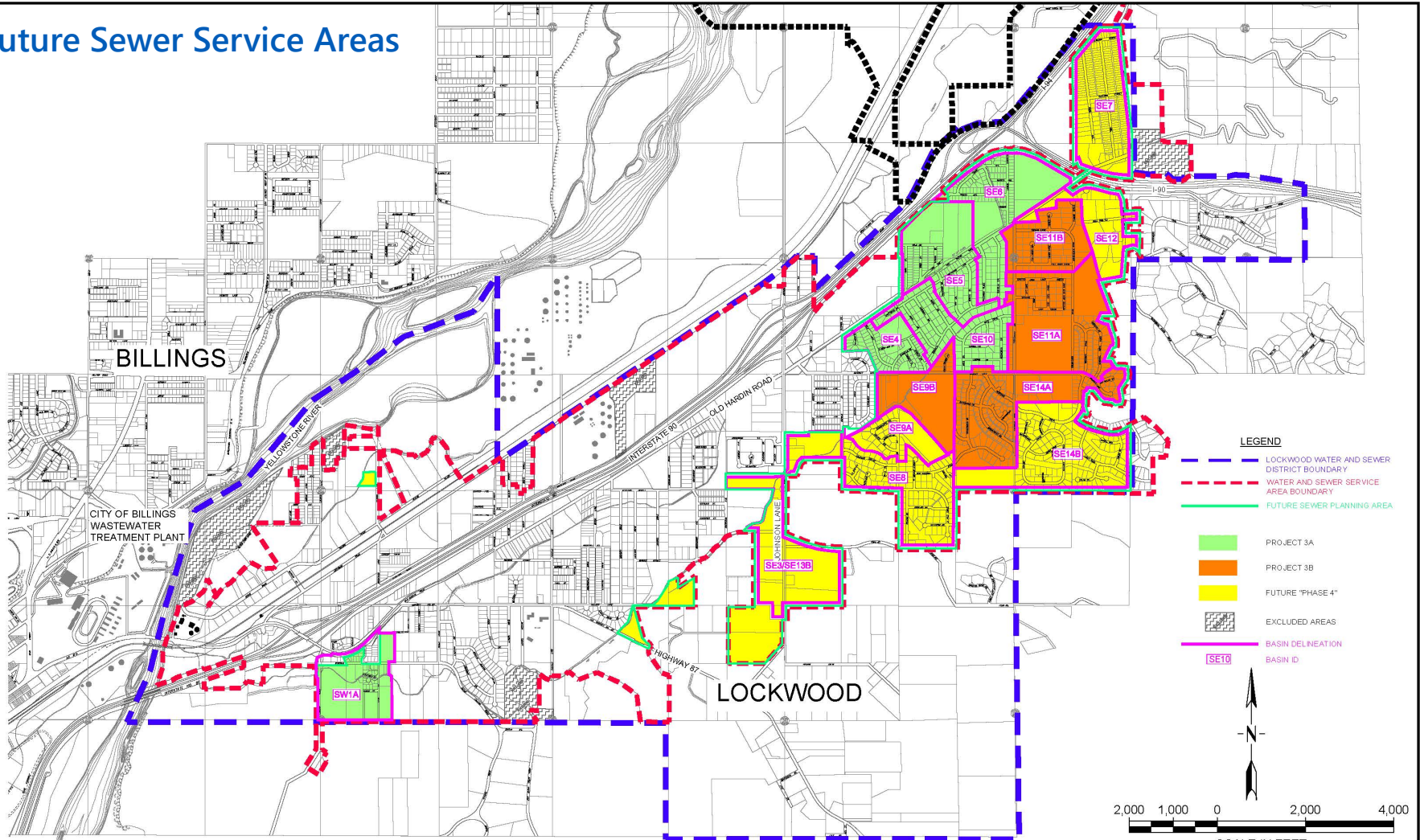
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Future Sewer Service Areas



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V:\0849042 Sewer\10 - TO 1 PERACAD\Emits\Fig 7-5.dwg Plotted by randy lara on May/4/2020

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LOCKWOOD	LOCKWOOD WATER AND SEWER DISTRICT 2020 WASTEWATER PER UPDATE	MONTANA	PROJECT NO. 0849.042.20
	PHASE 3 SEWER SUBDISTRICT ALTERNATIVE 2 - TWO PROJECTS		FIGURE NUMBER FIG 7-5

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Water & Sewer District

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Phase 3 Opinions of Probable Cost

Project	Proposed Construction Year	Project Cost
Project 3A	2022-2023	\$10,764,000
Project 3B	2024-2025	\$9,994,000

Phase 3 Projected User Rates

Project	No. of Connections	Sewer Assessment	Reserve Capacity Assessment	Avg. Monthly Sewer Rate	Avg. Monthly Cost
With Grants					
3A	461	\$93.82	\$3.33	\$53.16	\$150.31
3B	369	\$108.40	\$3.33	\$53.16	\$164.89
Without Grants					
3A	461	\$102.13	\$3.33	\$53.16	\$158.62
3B	369	\$118.56	\$3.33	\$53.16	\$175.05

Funding Programs for Planning and Construction Activities

- Potential Funding Agencies
 - June 2020 – Montana Dept of Natural Resources and Conservation (RRGL)
 - June 2020 – Montana Dept of Commerce (TSEP)
 - DEQ – SRF Loan Program
 - Monitor for other infrastructure funding that may become available including possible loan forgiveness or infrastructure stimulus funding

There is Help for Low Income Households

- Help paying for construction cost for service line and septic tank abandonment
- USDA-RD Grants and Loans are available for very low income households

Preliminary Implementation Schedule

Task Description	Project 3A	Project 3B
1. Final Facilities Plan Approval and Adoption	Complete	Complete
2. Submit TSEP Grant Application	Complete	May 2022
3. Submit RRGL Grant Application	Complete	May 2022
4. Submit SRF Loan Application	May 2021	May 2022
5. Preliminary Notice of Grant/Loan Award	May 2021	May 2023
6. Legal Process to Establish Boundary and Special Assessment	Summer 2021	Summer 2023
7. Completion of Final Plans and Specifications	May 2022	May 2024
8. Receive Bids of Construction	July 2022	July 2024
9. Award Construction Contract	July 2022	July 2024
10. Begin Construction	Sept 2022	Sept 2024
11. Complete Construction	Aug 2023	Aug 2025
12. Two-Year Certification	Aug 2025	Aug 2027

Environmental

- Environmental review and public involvement
- Agency correspondence and website consultations
 - Federal: Army Corps of Engineers, Natural Resources Conservation Service, US Fish and Wildlife Service
 - State: Dept of Environmental Quality; Dept of Natural Resources and Conservation; Fish, Wildlife and Parks; State Historic Preservation Office
- Affected environment, environmental consequences, and mitigation
 - Land use
 - Biological resources
 - 100/500 year floodplain
 - Wetlands and stream crossings
 - Cultural resources
 - Socio economic and environmental justice

Where Do We Go From Here?

- Submit second public hearing information to TSEP
- Continue monitoring for other sources of infrastructure funding
- Begin process to establish Phase 3 Boundary
- Prepare for project implementation in 2021/2022



Thank You.



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